

STEAM
TURBINES

The inner set of discs is pressed together by means of oil pressure on a single large piston, and released by means of a spiral spring. This spring as well as the oil piston is placed concentrically with the gear case and the shafting.

The admission of oil to the pistons is regulated by means of a manoeuvring wheel fitted near to the stop valve. When going ahead the outer discs are released and separated, and the inner ones are under pressure, causing the gear case to be fixed to the driving, and the driven parts of the case to be fixed

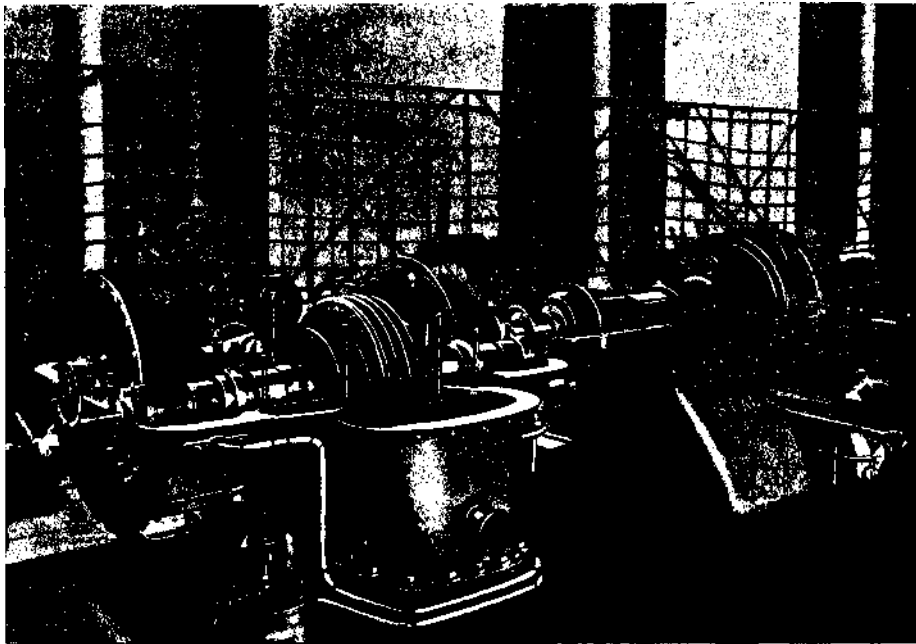


Fig. 521—Main Turbine of S.S. *Pacific*

both to the driving and the driven parts of the intermediate shaft. In this condition the gear case acts as a fly-wheel. The spur wheels inside the case remaining stationary in relation to the second reduction pinion; thus the reversing clutch causes no losses. When going astern the inner discs are released and the outer ones are pressed together. The gear case then becomes fixed relative to the outer casing, and the spur wheels inside the gear case are forced to revolve in opposite direction, thus also reversing the motion of the main shafting with the

propeller. If both disc clutches are released, the propeller shafting and the second reduction gear become stationary, and the gear case rotates idly at half the number of revolutions of the intermediate shaft.

The supply of lubricating oil to the gear case is very ample, and even at the greatest possible continuous slipping of the clutches the oil is not likely to be overheated.